

REVIEW ARTICLE

Emotional processing strategies in cognitive behavioral therapy

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Abstract

With the growing interest of cognitive behaviour therapy in early developed psychopathology like personality disorders there is an increased need for therapeutic methods for more directly treating traumatic emotions connecting with the pathogenic schemas. Affects and emotions have been increasingly brought to the prominence in cognitive behavioral theory and practice. Research also suggests that distorted images of the self are common in people traumatized in childhood who develop psychiatric disorder and play a role in maintaining this disorder. The images are often linked in thematic and sensory detail to emotionally distressing memories that are clustered around the onset or worsening of the disorder. Several cognitive and behavioral approaches have begun to emphasize emotional phenomena connected with traumatic memories. Experiential methods seem to be the most effective. Emotional processing methods appear to be a valuable adjunct to conventional CBT in working with cases where there is an early history of trauma or distress. This article discusses five forms of these methods: (i) imagery with rescripting; (ii) role playing; (iii) therapeutic letters; (iv) imagery rehearsal therapy; and (v) elaborating of catastrophic scenario.

INTRODUCTION

Part of patients with psychical problems describes important stressful experiences in childhood or during the life (physical, sexual or psychical abuse, exaggerated stressful events etc.). In others there were not fulfilled basic child needs, as safety, acceptance and validation. In case of psychic problems in adulthood these patients start to be resistant to classical therapeutic strategies and also to pharmacy (Chu & Dill 1990; McNally *et al* 2006). Many these patients report intrusive and distressing memories of specific events in their lives. Abnormalities in mental imagery have

been implicated in a range of mental health conditions. Imagery has a particularly powerful effect on emotion and as such plays a particularly important role in emotional disorders (Holmes *et al* 2008). Reexperiencing symptoms are usually sensory impressions and emotional responses from the trauma that appear to lack a time perspective and a context. Where present, these memories are believed to act as a maintaining factor (Brewin *et al* 2009). Typically the memories come as short intrusions but there is no possibility to recollect all circumstances what happened. Patients dissociate parts of their experiences and remember only restricted memories of their childhood. But this disso-

Tab. 1. Epstein's cognitive-experiential model (Epstein 1994).

RATIONAL SYSTEM	EXPERIENTIAL SYSTEM
<ul style="list-style-type: none"> • Analytical, logical • Reason-oriented • No direct links to emotion system • Can be changed by argument • Intellectual 'head level' belief change 	<ul style="list-style-type: none"> • Intuitive • Automatic / narrative • Direct input from emotion systems • Compelling/ "experiencing is believing" • More deeply encoded • Harder to change • Emotional 'heart level' change

ciation doesn't help them sufficiently – they are fearful or sad in current situations and don't understand why. The vast majority of intrusive memories can be interpreted as re-experiencing of warning signals, i.e. stimuli that signalled the onset of the trauma or of moments when the meaning of the event changed for the worse (Ehlers *et al* 2004). Using questions during therapeutic dialogue doesn't help many patients passably to contact with stressful memories. There are various experiential strategies using imagination, writing the letters or role playing, which could be used to improving contact with dissociated or traumatic memories and experiences (Prasko *et al* 2009a). Cognitions in the form of mental images have a more powerful impact on emotion than their verbal counterparts (Holmes *et al* 2008). Theories suggest that experiential information derived from multi-sensory experience with emotional content is processed at a deeper and more memorable level than more factual, verbal, rational/logical information that lacks strong emotional content (Epstein 1994; Denes-Raj & Epstein 1994; Kralik *et al* 2012). Imagery evokes stronger affective responses than does verbal processing, perhaps because of sensitivity of emotional brain regions to imagery, the similarity of imagery to perception, and to autobiographical episodes (Holmes *et al* 2008).

Research statistics have revealed a surprising high incidence of severe distress or trauma, including childhood physical and sexual abuse, in the histories of both psychiatric patients and the general population (Carmen *et al* 1984; Herman 1986; Chu & Dill 1990). Many of patients suffer as children with unsatisfactory fulfilled basic child's needs, such as security, acceptance or approbation. Without the systematic processing these traumatic experiences the treatment is unsuccessful and their problems persist. The deleterious effects of childhood abusive experiences on growth and development have been well documented and are associated with a variety of later psychiatric difficulties, including affect dysregulation, anxiety, depression, aggression, identity disturbance, social isolation, self-destructive behavior, alcohol and drug abuse, eating disorders, and various physiological changes (Bagley & Ramsey 1986; Shapiro 1987; van der Kolk 1987; Hall *et al* 1989).

Dissociation is defined as the segregation of a group of mental processes from the rest of a person's usually

integrated functions of consciousness, memory, perception, and sensory and motor behavior (Randy *et al* 2010; <http://medicaldictionary.thefreedictionary.com/dissociation>). Level of dissociation is significantly higher in many psychiatric disorders (Pastucha *et al* 2009a,b; Prasko *et al* 2009b; Prasko *et al* 2010c) and is associated with resistance to the therapy (Prasko *et al* 2009b) and higher amount of therapeutic countertransference (Prasko *et al* 2010d). With regard to childhood sexual abuse, an association with dissociation in adulthood is confirmed by some studies and not by others. Childhood abuse, particularly chronic abuse beginning at early ages, is related to the development of high levels of dissociative symptoms including amnesia for abuse memories. Carbone (1996) explored women in outpatient psychotherapy and found correlation between childhood sexual abuse and dissociation. Similarly, in a sample of college students, Rodriguez-Srednicki (2001) found relationships between sexual abuse in childhood and mean scores of dissociation. McNally *et al* (2006) also notified an association between sexual abuse in childhood and current dissociation. But not all reports have found relationships between child sexual abuse and current dissociation or intrusions (Groth-Marnat *et al* 2000; Romans *et al* 1999; Mulder *et al* 1998). Dissociation as a defence mechanism can be developed not only after severe childhood traumas, like sexual or physical abuse, but also in children with experiences of abandoned, frequently criticized by emotionally aroused parents or after other severe or repeated distress. Higher dissociative symptoms were correlated with early age at onset of physical and sexual abuse and more frequent sexual abuse (Chu *et al* 1999). One can argue that our memories (especially from childhood) are often distorted and can not be an accurate description of what's happened (Hyman *et al* 1995). That's true, but for the therapy is important, how patient experiences situation now and here because current memories influencing current views and are more important than the accuracy of the description.

Imagery rescripting is a psychological therapy that has proved successful for reducing the impact and distress associated with intrusive memories and dissociation in various populations (e.g. depression, social phobia, PTSD, nightmares, specific phobias, obsessive compulsive disorder, eating disorders, hypochondriasis).

In the last 25 years affects and emotions have been increasingly brought to the prominence in cognitive behavioral theory and practice. Foa and Kozak (1986), in their pivotal work on emotional processing, enlarge the cognitive-behavioral using of emotions, conveying the importance of evocating emotional arousal and its associated meanings while exposing feared stimuli. Their work stresses the significance of emotional experience but did not explicitly discuss functional aspects of emotions. Barlow (2002) shows that mood and anxiety disorders are primarily emotional disorders and,

as such, involve problems in emotional processes, not limited only to cognitive elaboration of triggers. Friman *et al* (1998) emphasize that emotions as concepts need to be studied as they are basic to the experience of man but, need to be understood as they relate to human actions to control, master, or accentuate internal events rather than as stimulating entities in themselves. Several cognitive and behavioral approaches have begun to emphasize emotional phenomena (Linehan 1993a; Segal *et al* 2002; Leahy 2001; Hayes 2002; Prasko *et al* 2009b). They share a focus on the allowance of emotional experiences, even those that are negative or painful. DBT (Linehan 1993b), ACT (Hayes *et al* 1999) and MBCT (Segal *et al* 2002) are some of most popular acceptance-based approaches. Leahy (2002) found that both anxiety and depression were associated with evaluating one's emotions more different than others' emotions, as uncontrollable, incomprehensible, and characterized by guilt. Acceptance of emotions is one of the first steps on the way of change in modern CBT (Prasko *et al* 2009b). One of the most important functions of narrative storytelling in the therapy is to regulate emotional storm by putting feelings into words and incorporating them in a coherent story (Prasko *et al* 2010a).

PTSD AND IMAGERY RESCRIPTING

Posttraumatic stress disorder (PTSD) is thought to be characterized by dysfunctional memory processes, i.e., the automatic re-experiencing of the traumatic event and the inability to consciously recall facts about the traumatic event, as well as altered emotional processing of trauma-relevant cues (Wessa *et al* 2006). In the mnemonic model of posttraumatic stress disorder (PTSD), the current memory of a negative event, not the event itself, determines symptoms (Rubin *et al* 2008). Triggers of re-experiencing symptoms include stimuli that have perceptual similarity to cues accompanying the traumatic event (Ehlers *et al* 2004). Intentional recall of the trauma in PTSD may be characterised by confusion about temporal order, and difficulty in accessing important details, both of which contribute to problematic appraisals. Recall tends to be disjointed. When patients with PTSD deliberately recall the worst moments of the trauma, they often do not access other relevant (usually subsequent) information that would correct impressions/predictions made at the time. All trauma-focused CBT protocols require the patient to confront their trauma memories (Foa & Kozak 1986; Resick *et al* 2002; Foa *et al* 2002; Foa *et al* 2005; Hembree *et al* 2003; Hackmann *et al* 2004; Schurr *et al* 2007; Ehlers *et al* 2010). These include the need to actively incorporate updating information ("I know now ...") into the worst moments of the trauma memory, and to train patients to discriminate between the stimuli that were present during the trauma ("then") and the innocuous triggers of re-experiencing symptoms ("now").

Some authors have raised the general concern that treatments that include systematic exposure to trauma memories may not be well tolerated, as confronting trauma memories can be very painful and distressing (Kilpatrick & Best 1984; Arntz *et al* 2007). Some studies have observed high drop-out rates of between 20–35% with trauma-focused PTSD treatments that contain a significant degree of exposure to traumatic memories (Resick *et al* 2002; Hembree *et al* 2003; Foa *et al* 2005; Schnurr *et al* 2007). There have also been alarms about a risk of symptom exacerbation with exposure (Tarrier *et al* 1999). However, the symptom exacerbations have been found only in a minority of traumatized patients and were transitory (Foa *et al* 2002; Hackmann *et al* 2004).

If flashbacks and other reexperiencing symptoms persist after successful updating of the hot spots and discrimination of triggers, imagery rescripting strategies can be useful (Arntz *et al* 2007; Holmes *et al* 2007; Grunert *et al* 2007; Ehlers *et al* 2010). Although imagery rescripting has long been part of cognitive behaviour therapy (CBT), recent years have seen a growing interest in the use of imagery rescripting interventions in CBT, especially with patients who struggle with distressing, intrusive imagery. During imagery rescripting the patient transforms the traumatic image into a new more safety image that signifies that the trauma is over (Prasko *et al* 2012). The transformed images can provide convincing evidence that the intrusions are a product of the patient's mind rather than representing current reality.

CHILDHOOD TRAUMA AND RESCRIPTION IN IMAGINATION

Secure attachment in childhood is important base for healthy psychological development of the person (Bowlby 1969, 1982, 1988; Holmes 1996). Many of patients suffering with psychiatric disorder describe significant stressful experiences from childhood or later in their life. Many of them suffer as children with unsatisfactory fulfilled basic child's needs, such as security, acceptance or approbation. Childhood psychic severe distress or trauma appears to be an important etiopathological factor in the development of a number of serious disorders or relational problems both in childhood and in adulthood, that appear to last for long periods of life, no matter what diagnosis the patient eventually receives (van der Kolk *et al* 1991; Romans *et al* 1999; Rodrigues-Srednicki 2001; Randy *et al* 2010). Childhood trauma may be accompanied by biological changes that are caused by the stressful events. Once the events take place, a number of internal changes occur in the child. These changes last. Thought suppression, sleep problems, exaggerated startle responses, developmental regressions, fears of the mundane, deliberate avoidances, panic, irritability, and hypervigilance are prominent among these. Terr (1991) suggests four characteristics related to childhood trauma that appear

to last for long periods of life. These are visualized or otherwise repeatedly perceived memories of the traumatic event, repetitive behaviors, trauma-specific fears, and changed attitudes about people, life, and the future. She divides childhood trauma into two basic types: (a) type I trauma includes memories, “omens,” and misperceptions; (b) type II trauma includes denial and numbing, self-hypnosis and dissociation, and rage.

Without the systematic processing these traumatic experiences the treatment of many patients is unsuccessful and their problems persist. Among basic principles in the treatment of the patients who developed psychiatric disorder and have stressful events in childhood or adolescence belongs the creation of collaborative therapeutic relation, explanation and psychoeducation what happens with the patient and reducing or correct stigmatization and guilt feelings. Therapist helps the patient to understand, how symptoms connected with the events from childhood and how they are interconnected with actual problems in life (Smucker & Neiderdee 1995).

The rescription of traumatic or stressful events follows after cognitive restructuring of core schemas and conditional assumptions. Therapeutic process can be divided into of several steps (Prasko *et al* 2012):

- (a) formation of the therapeutic atmospheres (with feelings of security and control, acceptance, approbation, validation of any emotions);
- (b) describing the painful memories;
- (c) formulating the needs of the child in these situation;
- (d) discussing “safety person”, who could help child;
- (e) imagining the event rescripted with the experience of better end in imagination – rescripting the story;
- (f) general calm down.

Imagery with rescripting techniques that focus on changing unpleasant memories have also been used as major components of schema therapy programs for borderline personality disorder (Giesen-Bloo *et al* 2006; Weertman & Arntz 2007), in bulimia nervosa (Ohanian 2002), snake phobia (Hunt & Fenton 2007), OCD (Prasko 2010c), for posttraumatic stress disorder arising from childhood sexual abuse (Smucker & Neiderdee 1995), and for depression (Wheatley *et al* 2007; Brevin *et al* 2009). The aim of therapist is to help the patient memorising the stressful events and expressing affective experience and then help him/her to rescript experience to less painful.

USING THE THERAPEUTIC LETTERS TO EMOTIONAL PROCESSING OF TRAUMATIC EMOTIONS FROM CHILDHOOD

The letter writing is a psychotherapeutic strategy, which can help to the patients to cope with the relationship to the significant people from their childhood (Prasko

et al 2009b). The social and the interpersonal experience from the childhood significantly affect behavior of the individual in the adult age. The purpose of writing letters is to experience and to understand their own feelings, to cope with strong emotional experiences, which are related to the injuries in the childhood. The letter-writing process is carried out in a safe atmosphere of the therapeutic relationship, where the patients can learn to deal with these emotions. The basic types of therapeutic letters are these four (Prasko *et al* 2009b): (a) not censored letter; (b) emphatic letter from the “other side”; (c) the letter to the “inner child” of the significant person; (d) and the letter “visit-card”.

(a) Non censored letter (“Dirty letter”)

The letter is addressed to the person which is connected with the development of core beliefs and conditional rules in childhood. Optimally, the letter should not be censored and has to contain all emotions, needs, demands and condemnations, that patient can feel to this person. Patient recalls the time he/she has believed, that he/she has failed or has been a bad person, or that nobody loved him/her, had to be perfect, not making mistakes etc. The letter could contain all feelings, needs, exigencies, condemnations which patient experienced to that person. It is important to express the emotions in a “raw”, naturalistic and crude form. If it is too “soft” therapist asks the patient to write a new, more open and authentic letter. Therapist helps the patient to discover next important emotion in the relationship: aggression, passion, sorrow, disillusion, wish, love etc. These letters can also help the patient to understand that all relations, especially to close person, has many tiers of emotions. It is optimal to find several levels of emotional experience: anger, grief, pain, feelings of abandon, contempt, envy, jealousy; fear and uncertainty; sorrow and responsibility; love, understanding, intimacy. “Dirty letter” to a significant person can be focused on opening various emotional levels of the relation.

(b) Emphatic letter from the “other side”

The second letter is the answer, which patient wants to receive from the person he/she write noncensored letter. It is “ideal letter”, which should help to treat injuries from the childhood and later life. Letter writing provides an avenue for locating support not just from external sources, but also from internal sources. patient responds to the letter with what he or she feels would be the most beneficial response, thus providing self-support (Madigan 1997). Even if he writes this letter to himself, creation can be crucial for him, because the patient recognized what he wants. The patients are thus provided with an opportunity to view situation from a different angle. Such a letter can help the patient to change his maladaptive schemas. The patient formulates it to his hurting part of the personality. It can help with:

- healing of psychic traumas (empathy, apologize)
- give acceptance (“you are my, I love you...”)

- give safety (“I am with you...“)
- reinforce (“You know...you cope well with...“)
- give freedom (“you can yourself...“)

(c) Letter to the “inner child” of the significant person

The third letter patient writes to the “child” of important person. Therapist asks the patient, to bring the photos of the important person when she or he was as a child. We ask patient to think, what this child on picture missed from his or her parents. Which needs of this child have not been satisfied? Then patient writes an empathic letter to this small child. This letter provides the experience of adult feeling of caring and protection above important person in reversed role. Suddenly there is not a big rejecting mother or physically abusing father anymore, but a child with unsatisfied child’s needs. This letter helps to equalize roles between the patient and his close relative.

(d) Letter “visit-card”

This letter is “censored” and write from modus “healthy adult”. Then it could be written directly, bravely, but no quackery, destined to reconciliation, with dignity, great respect to the addressed person. Letter “visit-card” is:

- letter “adult to adult”;
- change roles, includes compromises, empathy to important relative;
- “I am OK – you are OK”
- Patient could be proud what he wrights in this letter.

ROLE PLAYING FOR PROCESING EMOTIONS TO SIGNIFICANT PERSON

Role playing of stressful situation and changing the stressful situation in role playing are the useful methods for emotional processing applied within the cognitive-behavioral therapy (Coles *et al* 2002; Prasko *et al* 2007). Instead, patient hurtful situation imagined in his/her mind, he or she play it in session. After description of the childhood traumatic or stressful experiences therapist ask the patient to verbalize his/her opinion to the person, who maltreat him/her or who didn’t help him/her at past stressful situation. Agresor or non-helping person could be symbolized by empty chair or by some object (Prasko *et al* 2007). The next step is adding problem solving in role playing. At first therapist together with the patient plan the best reaction on past traumatic or stressful situation. According the patient’s instruction therapist plays the role of the helper. After that they play together the ideal solution of the situation. It is possible to create other helping persons.

There are many variants of role playing of memories. One of frequently used is *inversion of roles*, e.g. a patient plays the role of his father and therapist plays the role of the patient as a child. The aim is to better understand the feeling of other person and his/her behavior. Other variant is empty chair, monologue.

Role playing is powerful strategy for emotional processing. After role playing therapist must have enough time to calm down atmosphere, create safety, express the empathy and honour patient.

NIGHTMARES AND IMAGERY REHEARSAL THERAPY

The evidence presented supports the concept that disturbed sleep is an important issue in posttraumatic stress disorder (PTSD) treatment. Evidence also shows that disturbing dreams are associated with psychological distress (Haynes & Mooney 1975; Berquier & Aston 1992; Zadra & Dondri 2000) and sleep impairment (Kales *et al* 1980; Krakow *et al* 1995). Persistent and severe posttraumatic nightmares and sleep disturbance are reported by more than 70% of combat veterans and civilians with (PTSD) (Harvey *et al* 2003; Lydiard & Hammer 2009). Moderate-to-large correlations between nightmares and anxiety, depression, and PTSD have been reported (Berquier & Aston 1992; Zadra & Dondri 2000). Nightmares disrupt sleep, producing conditioning patterns similar to classic psychophysiological insomnia along with a specific complaint of “fear of going to sleep.” (Haynes & Mooney 1975; Kales *et al* 1980; Krakow *et al* 1995). The benefit of CBT treatment, which targets nightmares (imagery rehearsal therapy), also supports the theory that targeting sleep in PTSD is clinically relevant. Prospective treatment studies of brief cognitive-behavioral techniques, including desensitization and imagery rehearsal, which solely targeted disturbing dreams in nightmare sufferers without comorbid psychiatric disorders, demonstrated large reductions in nightmares (Cellucci & Lawrence 1978; Kellner *et al* 1992; Neidhardt *et al* 1992; Krakow *et al* 1995). In some studies, decreased nightmares were associated with decreased anxiety (Zadra & Dondri 2000; Kellner *et al* 1992; Neidhardt *et al* 1992) and improvements in sleep (Krakow *et al* 1995). In a preliminary report on nightmare treatment in PTSD patients, disturbing dreams and posttraumatic stress severity decreased and sleep quality improved with imagery rehearsal therapy (Krakow *et al* 2000). Initially, the imagery rehearsal therapy sessions (two 3-hour group sessions a week apart plus 1 hour of follow-up 3 weeks later) provided participants with information about nightmares associated with traumatic experiences (Krakow & Zadra 2006). Participants were taught methods of developing pleasant imagery and drawing on old nightmare images to slowly create a new dream, which they were instructed to rehearse 5 to 20 minutes per day.

Imagery rehearsal therapy give patient assumptions as follows (Krakow *et al* 2001): (a) nightmares may be caused by uncontrollable and traumatic events, yet may serve a beneficial purpose immediately following trauma by providing information and emotional processing; (b) nightmares persisting for months may no

longer serve useful purposes and may be viewed more pragmatically as a sleep disorder; (c) nightmares may be successfully controlled by targeting them as habits or learned behaviors; (d) working with waking imagery influences nightmares because things thought about during the day are related to things dreamed about at night; (e) nightmares can be changed into positive, new imagery; and (f) rehearsing new imagery (“new dream”) while awake reduces or eliminates nightmares, without requiring changes on each and every nightmare.

In the 1st session of imagery rehearsal therapy, patients are encouraged to examine 2 contrasting views of nightmares: nightmares as a function only of traumatic exposure vs nightmares as a function of both trauma and learned behaviors. Patients are asked to explore the possibility that although nightmares may be trauma-induced, they may also be habit-sustained. At the end of the 1st session, participants practice pleasant imagery exercises, learn cognitive behavioral tools for dealing with unpleasant images that might emerge, and are asked to practice pleasant imagery. At the 2nd session, imagery practice is discussed and any difficulties addressed. Then, participants learn how to use imagery rehearsal therapy on a single, self selected nightmare. The participant writes down her disturbing dream, then per a model devised by Neidhardt *et al* (1992) is instructed to “change the nightmare anyway you wish” and to write down the changed dream. Afterward, each participant uses imagery to rehearse her own “new dream” scenario for 10 to 15 minutes. Next, she briefly describes her old nightmare and how she changed it, both in her written attempt and, if applicable, during the actual rehearsal process. After this initial exercise, participants are encouraged to not write down the old nightmare or the changed version but to establish the process mentally. They are instructed to rehearse a new dream for at least 5 to 20 minutes per day but never to work on more than 2 distinct “new dreams” during each week. Descriptions of traumatic experiences and traumatic content of nightmares are discouraged throughout the program in a carefully designed attempt to minimize direct exposure. To facilitate this approach, participants are instructed to work first with a nightmare of lesser intensity and, if possible, one that does not seem like a “replay” or a “reenactment” of a trauma. In 3 weeks, the group meets for a 1-hour session to discuss progress, share experiences, and ask questions about nightmares, sleep, and PTSD and how imagery rehearsal therapy might be useful for other symptoms in addition to nightmares (Krakow *et al* 2001).

SOCIAL PHOBIA AND IMAGERY RESCRIPTING

Patients with social phobia often report experiencing negative, distorted images when in social situations (Wild *et al* 2008). The images appeared to be extracted

essences of memories of being criticized, humiliated, bullied, or experiencing other adverse social events (Hackmann *et al* 2000). Also, they are more likely than controls to take an observer perspective when recalling social events (Coles *et al* 2002). A retrospective study suggested that the images may be linked to early memories of unpleasant social experiences (Hackmann *et al* 2000). Individual with social phobia often believe that their negative images are an accurate reflection of how they appear to other people (Stopa *et al* 2007). Negative self-imagery increased anxiety and undermined effective social performance (Hirsch *et al* 2003; Vassilopoulos 2005). The negative self-images also seem to motivate patients to use self-protective strategies (avoidance or safety behaviors). Avoidant and safety behaviors prevent patients from disconfirming their fears (Salkovskis 1991) and may also have the consequence of contaminating the social interaction by making patients appear unfriendly (Clark & Wells 1995; Rapee & Heimberg 1997). Imagery rescripting of these negative images led to significant improvement in negative beliefs, image and memory distress and vividness, fear of negative evaluation, and anxiety in feared social situations in preliminary study (Wild *et al* 2008). According Hackmann *et al* (2000) protocol, to introduce the interview, patients are told: “I’d like to talk to you about some of the things that go through your mind when you get anxious in social situations. Usually when people are very anxious a mixture of thoughts and images or fleeting pictures go through their minds. I’m especially interested in any pictures or images you have popping into your mind when you’re anxious. Do you have any spontaneous images when you are anxious in social situations?” To determine the meaning of the image, patients are asked: “What is the worst thing about the image? What does it mean about you as a person?” Participants are then asked to dwell on their image and to rate how vivid (real) it felt to them and how distressing it was (scales described below). They are also asked to rate how frequently the image had occurred in the previous week.

The *memory rescripting* intervention built on Arntz and Weertman’s (1999) procedure in which patients revisit their memory in three stages. However, it differed in that it first involved cognitive restructuring. This was carried out for approximately 45 minutes prior to rescripting, which in itself lasted approximately 30 to 45 minutes. During the cognitive restructuring phase, the therapist and patient worked together to challenge the meaning of the early event and its implications for the present.

HEALTH ANXIETY AND CATASTROPHIC SCENARIO WITH IMAGINAL COPING

Involuntary images are also prominent in health anxiety, mainly in hypochondriasis. The images tended to be future orientated, and were reliably categorised into

four themes (Muse *et al* 2010): (a) being told 'the bad news' that patient has a serious/life threatening-illness; (b) suffering from a serious or life-threatening illness; (c) death and dying due to illness; and (d) impact of own death or serious illness on loved ones. Due to cognitive avoidance, the patient does not can neither create a strategy for coping with the feared situation nor habituate to catastrophic thoughts. This in turn maintains and gradually increases the fear from suffering, dying and death. Treatment of hypochondriasis becomes markedly shorter and more intensit if cognitive avoidance is prevented. It is essential to use the approach at the time of a stable therapeutic relationship, after the patient has started cognitive reconstruction and his or her compliance is apparent. The steps are as follows (Prasko *et al* 2010d): (a) education about the vicious circle of fear from illness or death; (b) explanation of the sense of imaginal exposure; (c) education about habituation during the imaginal exposure; (d) inductive questions aimed at detailed mapping of catastrophic thoughts and images; (e) instructions of how to write one's own scénario; (f) imaging the adaptive scenarios with coping.

After explaining the sense of exposure and obtaining the patients' consent, inductive questions are used to confront them with their own most terrifying fantasies. Patients are encouraged to think about the worst variants of their feared disease and its treatment. Gradually, they imagine the worst consequences for both themselves and their relatives. The interview guides them through the severe course of their disease, its physical, mental and social consequences, dying and death experience with all emotions and details they can imagine. Then patients are asked about their fantasies about life after death. As a rule, patients habituate to the worst-case scénario within several (3–8) exposure sessions. As soon as the patient elaborates strong emotions associated with fantasy, significant relief occurs and there is room for positive emotional experience. For next sessions, the patient always brings a written concept of what was discussed during the previous visit. The text is read at the beginning of each session, with the patient imagining everything. After going through the worst imaginations together, with the patient being able to bear the feelings related to them, we ask him or her questions about potential ways of managing the situation. Therapist discusses what he or she as well as his or her relatives and doctors can do in various aspects of the situation. What has to be accepted and what can be actively solved. Gradual habituation and finding of coping strategies, observed after several exposures, lead to a significant decrease in anxiety symptoms, safety and avoidance behaviour. Additional therapeutic interventions such as imaginal reliving and restructuring of meaning or imagery modification of traumatic memories might be helpful in health anxiety patients with mental images that are linked to earlier adverse events.

CONCLUSIONS

The text provides a description of experiential, imaginative, role playing and letter writing methods which proved effective in many patients, mainly in patients with vivid memories or dissociation, negative imagies to future, patient with traumatic childhood, social phobia, hypochondriasis, nightmares, PTSD, and personality disorders.

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